



**Alan C. Lloyd, Ph.D.**  
Agency Secretary

# Air Resources Board

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**Arnold Schwarzenegger**  
Governor

October 7, 2005

Mail-Out #MSC 05-18

TO: All Interested Parties

SUBJECT: PUBLIC WORKSHOPS TO DISCUSS MODIFICATIONS TO THE ZERO  
EMISSION BUS REGULATIONS

The California Air Resources Board (ARB or Board) staff invites you to participate in a public workshop to discuss modifications to the Zero Emission Bus (ZEB) regulations. The ZEB regulations can be found in title 13, CCR, section 1956.3 (Currently in process to be moved to section 2023.3)

In February 2000, the Board confirmed its continued commitment towards reducing emissions from public transportation by establishing a fleet rule for transit agencies, more stringent emission standards for new urban bus engines and promoting advanced technologies by adopting zero-emission bus (ZEB) demonstration and ZEB acquisition requirements. In addition, the Board directed staff to review ZEB technology and the feasibility of implementing the purchase provisions of the program. Staff has been monitoring the progress of ZEB technology and due to the current status of the technology, bus availability and cost sees a need to revise the ZEB purchase requirements.

The ZEB purchase requirement startup depends on the compliance path selected and is only applicable to larger transit agencies (those with more than 200 buses). For transit agencies on the diesel fuel path, a 15 percent aggregate total of all bus acquisitions from model years 2008 through 2015 must be ZEBs. For transit agencies on the alternative fuel path, the ZEB acquisition requirement starts with model year 2010 and runs through model year 2015. Transit agencies on the diesel path must submit a compliance plan by January 2007, while transit agencies on the alternative fuel path must submit a compliance plan by January 2009.

Transit agencies selected fuel cell powered buses as the technology most likely to cost-effectively meet the desired performance characteristics while meeting environmental

*The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our website: <http://www.arb.ca.gov>.*

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objectives. At the time the bus regulation was developed, information available indicated that the research and development of fuel cells in transit buses would lead their development before their application in light duty vehicles. Buses are better suited to handle the relatively larger size and weight of fuel cells and on-board fuel storage. In addition, the development of fuel cells in a controlled fleet application would allow fueling and services requirements to be performed at a single facility, thereby helping to mediate infrastructure and support challenges in the early years. As it turns out, fuel cell and vehicle manufacturers instead focused their resources on developing light duty fuel cell applications.

Since the development of the heavy-duty technology has not progressed as initially anticipated, staff is initiating this review and soliciting your input to guide the revision of the purchase requirements. The following workshop has been scheduled to provide an overview and to receive public comment.

DATE: October 27, 2005  
TIME: 10 a.m. to 1 p.m.  
TOPIC: Modifications to the Zero Emission Bus (ZEB) regulations  
PLACE: MLD Conference Room, 2<sup>nd</sup> Floor  
1327 13<sup>th</sup> Street  
Sacramento, California 95814

Workshop presentations and handouts will be available at the workshop and on the Public Transit Agencies website at: <http://www.arb.ca.gov/msprog/bus/bus.htm>. The transit bus regulations are available at: <http://www.arb.ca.gov/msprog/bus/frmlregdocuments.htm>. If you would like to receive notification by email of updates to the Public Transit Agencies website, please sign up at <http://www.arb.ca.gov/listserv/ms-mailings.htm>.

If you have a disability-related accommodation need, please go to <http://www.arb.ca.gov/html/ada/ada.htm> for assistance or contact the ADA Coordinator at (916) 323-4916. If you are a person who needs assistance in a language other than English, please go to <http://www.arb.ca.gov/as/eeo/languageaccess.htm> or contact the Bilingual Coordinator, at (916) 324-5049.

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We welcome your participation. If you cannot attend and would like to provide comments, or if you have questions regarding the workshop, please contact Mr. Gerhard Achtelik, Air Pollution Specialist, at (916) 323-8973 or [gachteli@arb.ca.gov](mailto:gachteli@arb.ca.gov), or Mr. Jack Kitowski, Chief, at (916) 323-6169 or [jkitowsk@arb.ca.gov](mailto:jkitowsk@arb.ca.gov).

Sincerely,

/s/

Robert H. Cross, Chief  
Mobile Source Control Division

cc: Mr. Jack Kitowski, Chief  
On Road Controls Branch

Ms. Analisa Bevan, Chief  
Sustainable Transportation Technologies Branch

Ms. Annette Hebert, Chief  
Heavy Duty Diesel In Use Strategies Branch